

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
11 January 2001 (11.01.2001)

PCT

(10) International Publication Number
WO 01/02756 A1

(51) International Patent Classification⁷: F16H 61/12, G06F 19/00, H04L 13/00

(74) Agent: KIM, Won-Ho; Teheran Building, 825-33, Yoksam-dong, Kangnam-ku, Seoul 135-080 (KR).

(21) International Application Number: PCT/KR00/00690

(81) Designated States (*national*): AU, BR, CA, CN, ID, IN, JP, RU, US.

(22) International Filing Date: 29 June 2000 (29.06.2000)

(25) Filing Language: Korean

(84) Designated States (*regional*): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

(26) Publication Language: English

(30) Priority Data:
1999/26331 1 July 1999 (01.07.1999) KR

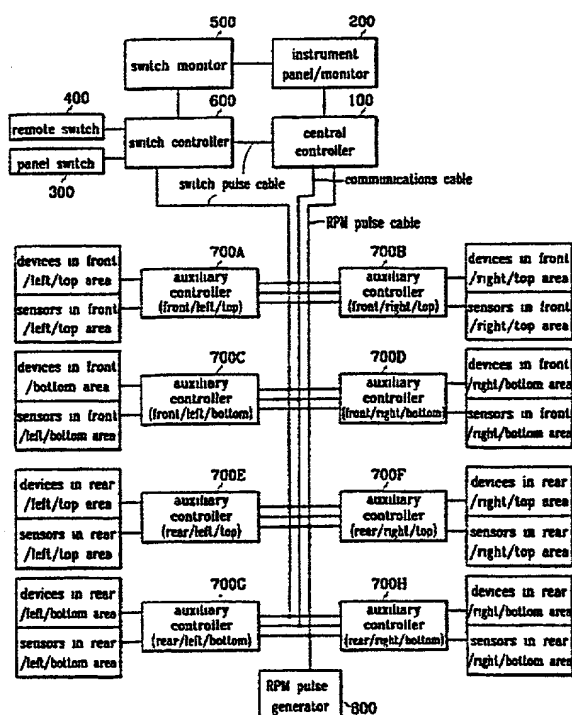
Published:
— With international search report.

(71) Applicant and

(72) Inventor: KIM, Oh-Young [KR/KR]; 354-31, Shinlim 6-dong, Gwanak-ku, Seoul 151-016 (KR).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: INTEGRATED DIGITAL CONTROL SYSTEM AND METHOD FOR CONTROLLING AUTOMOTIVE ELECTRIC DEVICE



(57) Abstract: Disclosed is an integrated digital control SYSTEM and method for an automotive electrical device. The SYSTEM comprises switch means for controlling each portion of a vehicle, the switch means including switches; switch monitor means for displaying switch functions and operational states of the switches input from the switch means; switch control means for generating pulse signals corresponding to the switches operated and controlling the switch monitor means; auxiliary control means for performing input/output control, malfunction detection, automatic control, etc. of each logic-division portion; central control means for performing control of the auxiliary control means and all data; instrument panel/monitor means for performing an instrument panel simulation and applications program graphic processing according to control by the central control means; and RPM pulse generating means for providing RPM pulses to the central control means and the auxiliary control means through an RPM pulse cable. The method comprises the steps of performing logic divisions of each portion of the vehicle into predetermined regions; performing digital conversion of corresponding input/output data according to each divided region, and analyzing the input data according to region and performing integrated management into integrated code data to control the electrical device in the corresponding region; detecting malfunctions of the electrical device in the corresponding region; and controlling the detected malfunctions in the corresponding region.

WO 01/02756 A1